

990 On page 20, line 28, please insert (Sequence Listing  
ID No. 117)-- after "PPPGMIPP".

After page 29, please insert the enclosed gene sequence  
listing as new pages 30-96. Please renumber pages 30-37 as pages  
97-104.

### In the Claims

Sub 31  
991 1. (amended) A linear epitope for a human autoantibody  
selected from the group of peptides of less than forty amino  
acids, beginning with the amino acid numbered from the amino  
terminus followed by the listed amino acid sequence consisting of  
the La/SSB epitopes: 136, QVLNIQMRRTLHKAFKGS (Sequence  
Listing ID No. 19), 139, NIQMRRTLHKAFK (amino acids 4-16 of  
Sequence Listing ID No. 19), 144, RTLHKAFK (amino acids 9-16 of  
Sequence Listing ID No. 19), 17, ICHQIEYYFGDFNLPRDKFLK (Sequence  
Listing ID No. 20), 24, YFGDFNLP (amino acids 8-15 of Sequence  
Listing ID No. 20), 46, WVPLEIMIKFNR (Sequence Listing ID No.  
21), 47, VPLEIMIK (amino acids 2-9 of Sequence Listing ID No.  
21), 86, [KTKIRRRSPSKPL] KTKIRRRSPSKPL (Sequence Listing ID No.  
22), [89] 88, KIRRRSPSK (amino acids 4-11 of Sequence Listing ID  
No. 22), 56, NRLNRLTTDFNVIVE, (Sequence Listing ID No. 23), 56,  
NRLNRLTT (amino acids 1-8 of Sequence Listing ID No. 23), 257,  
GEIKWIDFVRGAK (Sequence Listing ID No. 24), 260, KWIDFVRGAK  
(amino acids 4-13 of Sequence Listing ID No. 24), 262, IDFVRGAK  
(amino acids 6-13 of Sequence Listing ID No. 24), 325,

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SLNKWKS~~KGRRFKGKGKGNK~~ (Sequence Listing ID No. 25), 330, KSKGRRFK  
(amino acids 6-13 of Sequence Listing ID No. 25), 292,  
GNIQLRNKEVTW (Sequence Listing ID No. 26), 296, LRNKEVTW (amino  
acids 5-12 of Sequence Listing ID No. 26), 154, IFVVFDSIE  
(Sequence Listing ID No. 27), 155, FVVFDSIE (amino acids 2-9 of  
Sequence Listing ID No. 27), 176, KETDLLILFKDDYFA (Sequence  
Listing ID No. 28), 182, ILFKDDYF (amino acids 7-14 of Sequence  
Listing ID No. 28), 104, YKNDVKNRSVYIKGFPT (Sequence Listing ID  
No. 29), 112, SVYIKGFP (amino acids 9-16 of Sequence Listing ID  
No. 29), 63, TDFNVIVE (Sequence Listing ID No. 30), 64, DFNVIVEA  
(amino acids 2-9 of Sequence Listing ID No. 30), 270, EGIILFKEKAK  
(Sequence Listing ID No. 31), 270, EGIILFKE (amino acids 1-8 of  
Sequence Listing ID No. 31), 354, KVQFQGKKT~~KFASD~~, (Sequence  
Listing ID No. 32), 360, KKT~~KFASD~~ (amino acids 7-14 of Sequence  
Listing ID No. 32), 246, REDLHILF (Sequence Listing ID No. 33),  
232, CLLKFSGD (Sequence Listing ID No. 34), 379, TGPVKRAR  
(Sequence Listing ID No. 35), 200, KVEAKLRAKQ (Sequence Listing  
ID No. 36), 202, EAKLRAKQ (amino acids 3-10 of Sequence Listing  
ID No. 36), ;

the Ro/SSA epitopes: 30, M~~N~~RLHRFL (Sequence  
Listing ID No. 37), 37, LCFGSEGGT (Sequence Listing ID No. 38),  
38, CFGSEGGT (amino acids 2-9 of Sequence Listing ID No. 38),  
[44] 41, SEGTTYIKEQ (Sequence Listing ID No. 39), [45] 42,  
EGTTYIKEQ (amino acids 2-11 of Sequence Listing ID No. 39), [47]

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44, GTYYIKEQ (amino acids 4-11 of Sequence Listing ID No. 39),  
[47] 44, GTYYI (amino acids 4-8 of Sequence Listing ID No. 39),  
[74] 76, EIKSFSQEGRT (Sequence Listing ID No. 40), 78, KSFSQEGR  
(amino acids 3-10 of Sequence Listing ID No. 40), 81, SQEGRTTKQ  
(Sequence Listing ID No. 41), 84, GRTTKQEPM (Sequence Listing ID  
No. 42), [105] 106, STKQAAFKAV (amino acids 2-11 of Sequence  
Listing ID No. 43), [106] 105, ISTKQAAFKAVS (Sequence Listing ID  
No. 43), [109] 108, KQAAFKAV (amino acids 4-11 of Sequence  
Listing ID No. 43), 111, AFKAVSEVC (Sequence Listing ID No. 44),  
126, FTFIQFKKDLKESMK (Sequence Listing ID No. 45), 130, QFKKDLKE  
(amino acids 5-12 of Sequence Listing ID No. 45), 138, SMKCGMWGRA  
(Sequence Listing ID No. 46), 139, MKCGMWGRA (amino acids 2-10 of  
Sequence Listing ID No. 46), 142, GMWGRALRKAIA (Sequence Listing  
ID No. 47), 145, GRALRKAI (amino acids 4-11 of Sequence Listing  
ID No. 47), 165, [ALAVTKYKORNGWSHKDLLRLSH]  
ALAVTKYKORNGWSHKDLLRLSH (Sequence Listing ID No. 48), 169,  
[TKYKORNG] TKYKORNG (amino acids 5-12 of Sequence Listing ID No.  
48), 173, [ORNGWSHK] ORNGWSHK (amino acids 9-16 of Sequence  
Listing ID No. 48), 182, LLRLSHLKPSS (Sequence Listing ID No.  
49), 184, RLSHLKPS (amino acids 3-10 of Sequence Listing ID No.  
49), [198] 199, TKYITKGW (amino acids 2-9 of Sequence Listing ID  
No. 71), [201] 202, ITKGWKEV (amino acids 5-12 of Sequence  
Listing ID No. 71), 210, HELYKEKA (Sequence Listing ID No. 50),  
212, LYKEKALSV (Sequence Listing ID No. 51), [215] 216,

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KALSVETEKLLKYL (Sequence Listing ID No. 52), [221] 222, TEKLLKYL  
(amino acids 7-14 of Sequence Listing ID No. 52), 224, KLLKYLEA  
(Sequence Listing ID No. 53), 229, LEAVEKVKRTKDE (Sequence  
Listing ID No. 54), 234, KVKRTKDE (amino acids 6-13 of Sequence  
Listing ID No. 54), 257, HLLTNHLKSKEVWKALLQEMPL (Sequence Listing  
ID No. 55), 263, LKSKEVWK (amino acids 7-14 of Sequence Listing  
ID No. 55), 264, KSKEVWKA (amino acids 8-15 of Sequence Listing  
ID No. 55), 265, SKEVWK (amino acids 9-14 of Sequence Listing ID  
No. 55), 280 ALLRNLGKMTA (Sequence Listing ID No. 56), 283,  
RNLGKMT (amino acids 4-10 of Sequence Listing ID No. 56), 285,  
LGKMTANS (Sequence Listing ID No. 57), 308, LCNEKLLKKARIHPFHI  
(Sequence Listing ID No. 58), 313, LLKKARI (amino acids 6-12 of  
Sequence Listing ID No. 58), 315, KKARIHPF (amino acids 8-15 of  
Sequence Listing ID No. 58), 330, TYKTGHGLRGKLKWRPDE (Sequence  
Listing ID No. 59), 331, YKTGHGL (amino acids 2-8 of Sequence  
Listing ID No. 59), 352, ALDAAFYK (Sequence Listing ID No. 60),  
355, AAFYKTFKTVEPTGKRFLLA (Sequence Listing ID No. 61), [362]  
379, [ASMNORVLGS] ASMNORVLGS (Sequence Listing ID No. 62), 365,  
EPTGKRFL (amino acids 11-18 of Sequence Listing ID No. 61), 398,  
AMCMVVTR (Sequence Listing ID No. 63), 414, AFSDEMVP (Sequence  
Listing ID No. 64), 420, VPCPVTTD (Sequence Listing ID No. 65),  
433, VLMAMSQI (Sequence Listing ID No. 66), 445, TDCSLPMI  
(Sequence Listing ID No. 67), 449, LPMIWAQKTNTPA (amino acids 3-  
15 of Sequence Listing ID No. 68), [453] 472, TFAGGVHPAI

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*21*  
*chg.*  
*991*  
(Sequence Listing ID No. 69), 472, [TFAGGVHPAI, 472,] TFAGGVHP  
(amino acids 1-8 of Sequence Listing ID No. 69), [482] 481,  
IALREYRKKMDIPAKL (Sequence Listing ID No. 70), 484, REYRKKMD  
(amino acids 4-11 of Sequence Listing ID No. 70),;

the Sm B/B' epitopes: [20] 28, IGTFKAFD (Sequence  
Listing ID No. 103), [21] 29, GTFKAFDK (Sequence Listing ID No.  
1), [22] 30, TFKAFDKH (amino acids 1-8 of Sequence Listing ID No.  
15) 29, [GTFKAFDK] 30, TFKAFDKHM (Sequence Listing ID No. 15) 44,  
DCDEFRKI (Sequence Listing ID No. 104) 45, [CDEFKAIK] CDEFKAIK  
(amino acids 1-8 of Sequence Listing ID No. 2) 45,  
CDEFKAIKPKNAKQP (Sequence Listing ID No. 2), 46, [DEFKJKP]  
DEFKIKP (amino acids 2-9 of Sequence Listing ID No. 2), 47,  
EFRKIKPK (amino acids 3-10 of Sequence Listing ID No. 2), [76]  
48, [FRKJKPN] FRKIKPN (amino acids 4-11 of Sequence Listing ID  
No. 2), [77] 49, RKIKPKNA (amino acids 5-12 of Sequence Listing  
ID No. 2), [78] 50, KIKPKNAK (amino acids 6-13 of Sequence  
Listing ID No. 2), [79] 51, IKPKNAKQ (amino acids 7-14 of  
Sequence Listing ID No. 2), [80] 52, [KPKNAKOP] KPKNAKOP (amino  
acids 8-15 of Sequence Listing ID No. 2), [81] 53, PKNAKQPE  
(Sequence Listing ID No. 105), 83, EGPPPKDT (Sequence Listing ID  
No. 16), 88, KDTGIARV (Sequence Listing ID No. 17), 94, RVPLAGAA  
(Sequence Listing ID No. 3), 101, AGGPGVGRAAGRGVPAG (Sequence  
Listing ID No. 4), 104, PGVGRAAG (amino acids 4-11 of Sequence  
Listing ID No. 4), 120, IPQAPAGLAG (Sequence Listing ID No. 18),

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125, AGLAGPVRGVGGPSQ (Sequence Listing ID No. 5), 131, VRGVGGPS  
(amino acids 6-13 of Sequence Listing ID No. 5) 139, QQVMTPQG  
(Sequence Listing ID No. 107), 140, QVMTPQGR (amino acids 1-6 of  
Sequence Listing ID No. 6), 141, [VMTPOGRG] VMTPOGRG, (amino acids  
2-9 of (Sequence Listing ID No. 6), 144, [POGR] POGR (amino acids  
5-8 of Sequence Listing ID No. 6), 142, [MTPQGBGT] MTPQGRGT  
(amino acids 3-11 of Sequence Listing ID No. 6), 143, TPQGRGTV,  
(amino acids 4-11 of Sequence Listing ID No. 6), 144, PQGRGTVA  
(amino acids 5-12 of Sequence Listing ID No. 6) 145, QGRGTVA  
(Sequence Listing ID No. 108) 164, APTQYPPG (Sequence Listing ID  
No. 109) 165, PTQYPPGR (amino acids 1-8 of Sequence Listing ID  
No. 7) 166, TQYPPGRG (amino acids 2-9 of Sequence Listing ID No.  
7) 167, QYPPGRGT, (amino acids 3-10 of (Sequence Listing ID No. 7)  
168, YPPGRGTP (amino acids 4-11 of Sequence Listing ID No. 7)  
169, PPGRGTPP (amino acids 5-12 of Sequence Listing ID No. 7)  
170, PGRGTPPP (amino acids 6-13 of Sequence Listing ID No. 7)  
171, GRGTTPPP (amino acids 7-14 of Sequence Listing ID No. 7)  
172, RGTPPPPV (amino acids 8-15 of Sequence Listing ID No. 7)  
173, GTPPPPVG (Sequence Listing ID No. 110) 174, TPPPPVGRATPPPGI  
(Sequence Listing ID No. 8), 175, PPPPVGRA (amino acids 2-9 of  
Sequence Listing ID No. 8), 184, PPPGIMAP (Sequence Listing ID  
No. 9), 188, IMAPPPGM (Sequence Listing ID No. 111), 189,  
MAPPPGMRPPM (Sequence Listing ID No. 10), 189, MAPPPGMR (amino  
acids 1-8 of Sequence Listing ID No. 10), 191, PPPGMR (amino

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acids 3-8 of Sequence Listing ID No. 13), 190, APPPGMRP (amino  
acids 2-9 of Sequence Listing ID No. 10), 191, PPPGMRPP (amino  
acids 3-10 of Sequence Listing ID No. 10), 192, PPGMRPPM (amino  
acids 4-11 of Sequence Listing ID No. 10), 202, PIGLPPARGTPIGMPP  
(Sequence Listing ID No. 11), 206, PPARGTPI, (amino acids 5-11 of  
Sequence Listing ID No. 11), 212, PIGMPPPG (Sequence Listing ID  
No. 12), 213, IGMPPPGM (Sequence Listing ID No. 12), 214,  
[GMPPPGMB] GMPPPGMR (Sequence Listing ID No. 113), [216, PPPGMB,]  
215, MPPPGMRP (Sequence Listing ID No. 118), 216, PPPGMRPP (amino  
acids 4-11 of Sequence Listing ID No. 14), 217, PPGMRPPP  
(Sequence Listing ID No. 114), 220, MRPPPPGI (Sequence Listing ID  
No. 115), 221, RPPPPGIR (amino acids 1-8 of Sequence Listing ID  
No. 13), 221, RPPPPGIRGPP (Sequence Listing ID No. 13), 223,  
PPPGIR (amino acids 3-8 of Sequence Listing ID No. 13), 222,  
PPPPGIRG (amino acids 2-9 of Sequence Listing ID No. 13), 223,  
PPPGIRGP (amino acids 3-10 of Sequence Listing ID No. 13), 224,  
PPGIRGPP (amino acids 4-11 of Sequence Listing ID No. 13), 228,  
RGPPPPGM (amino acids 1-8 of Sequence Listing ID No. 14), 228,  
RGPPPPGMRPPR (Sequence Listing ID No. 14), 229, GPPPPGMR (amino  
acids 2-9 of Sequence Listing ID No. 14), 230, PPPPGMRP (amino  
acids 3-10 of Sequence Listing ID No. 14), 231, PPPGMRPP (amino  
acids 4-11 of Sequence Listing ID No. 14), 231, PPPGMR (amino  
acids 3-8 of Sequence Listing ID No. 10), and 232, PPGMRPPR  
(amino acids 5-12 of Sequence Listing ID No. 14).

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cut

6. (amended) The epitope of claim 1 wherein the peptide is selected from the group consisting of 29, GTFKAFDK (Sequence Listing ID No. 1), 45, CDEFKIKPKNAKQP (Sequence Listing ID No. 2), 94, RVPLAGAA (Sequence Listing ID No. 3), 101, AGGPGVGRAAGRGVRAG (Sequence Listing ID No. 4), 125, AGLAGPVRGVGGPSQ (Sequence Listing ID No. 5), 140, [QVMTPOGRGTVA] QVMTPOGRGTVA (Sequence Listing ID No. 6), 165, PTQYPPGRGTTPPPV (Sequence Listing ID No. 7), 174, TTPPPVGRATTPPPI (Sequence Listing ID No. 8), 184, PPRGIMAP (Sequence Listing ID No. 9), 189, MAPPPGMRPPM (Sequence Listing ID No. 10), 202, PIGLPPARGTPIGMPP (Sequence Listing ID No. 11), 212, PIGMPPPG (Sequence Listing ID No. 12), 221, RPPPPGIRGPP (Sequence Listing ID No. 13), [and] 228, RGPPPPGMRPPR (Sequence Listing ID No. 14), 30, TFKAFDKHM (Sequence Listing ID No. 15), 83, EGPPPKDT (Sequence Listing ID No. 16), 88, KDTGIARV, (Sequence Listing ID No. 17), and 120, IPQAPAGLAG (Sequence Listing ID No. 18), or mixtures thereof.

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12. (amended) A method for screening patients for autoimmune disorders comprising reacting a biological sample with an epitope selected from the group of peptides of less than forty amino acids, beginning with the amino acid numbered from the amino terminus followed by the listed amino acid sequence consisting of



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the La/SSB epitopes: 136, QVLNIQMRRTLHKAFKGS (Sequence Listing ID No. 19), 139, NIQMRRTLHKAFK (amino acids 4-16 of Sequence Listing ID No. 19), 144, RTLHKAFK (amino acids 9-16 of Sequence Listing ID No. 19), 17, ICHQIEYYFGDFNLPRDKFLK (Sequence Listing ID No. 20), 24, YFGDFNLP (amino acids 8-15 of Sequence Listing ID No. 20), 46, WVPLEIMIKFNR (Sequence Listing ID No. 21), 47, VPLEIMIK (amino acids 2-9 of Sequence Listing ID No. 21), 86, [KTKIRRRSPSKPL] KTKIRRRSPSKPL (Sequence Listing ID No. 22), [89] 88, KIRRRSPSK (amino acids 4-11 of Sequence Listing ID No. 22), 56, NRLNRLTTDFNVIVE, (Sequence Listing ID No. 23), 56, NRLNRLTT (amino acids 1-8 of Sequence Listing ID No. 23), 257, GEIKWIDFVRGAK (Sequence Listing ID No. 24), 260, KWIDFVRGAK (amino acids 4-13 of Sequence Listing ID No. 24), 262, IDFVRGAK (amino acids 6-13 of Sequence Listing ID No. 24), 325, SLNKWKSKGRRFKGKGKGNK (Sequence Listing ID No. 25), 330, KSKGRRFK (amino acids 6-13 of Sequence Listing ID No. 25), 292, GNLQLRNKEVTW (Sequence Listing ID No. 26), 296, LRNKEVTW (amino acids 5-12 of Sequence Listing ID No. 26), 154, IFVVFDSE (Sequence Listing ID No. 27), 155, FVVFDSE (amino acids 2-9 of Sequence Listing ID No. 27), 176, KETDLLILFKDDYFA (Sequence Listing ID No. 28), 182, ILFKDDYF (amino acids 7-14 of Sequence Listing ID No. 28), 104, YKNDVKNRSVYIKGFPT (Sequence Listing ID No. 29), 112, SVYIKGFP (amino acids 9-16 of Sequence Listing ID No. 29), 63, TDFNVIVE (Sequence Listing ID No. 30), 64, DFNVIVEA

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*AB*  
(amino acids 2-9 of Sequence Listing ID No. 30), 270, EGIILFKEKAK  
(Sequence Listing ID No. 31), 270, EGIILFKE (amino acids 1-8 of  
Sequence Listing ID No. 31), 354, KVQFQGKKTTFASD, (Sequence  
Listing ID No. 32), 360, KKTKFASD (amino acids 7-14 of Sequence  
Listing ID No. 32), 246, REDLHILF (Sequence Listing ID No. 33),  
232, CLLKFSGD (Sequence Listing ID No. 34), 379, TGPVKRAR  
(Sequence Listing ID No. 35), 200, KVEAKLRAKQ (Sequence Listing  
ID No. 36), 202, EAKLRAKQ (amino acids 3-10 of Sequence Listing  
ID No. 36), ;

the Ro/SSA epitopes: 30, MNRLHRFL (Sequence  
Listing ID No. 37), 37, LCFGSEGGT (Sequence Listing ID No. 38),  
38, CFGSEGGT (amino acids 2-9 of Sequence Listing ID No. 38),  
[44] 41, SEGTTYIKEQ (Sequence Listing ID No. 39), [45] 42,  
EGTTYIKEQ (amino acids 2-11 of Sequence Listing ID No. 39), [47]  
44, GTYYIKEQ (amino acids 4-11 of Sequence Listing ID No. 39),  
[47] 44, GTYYI (amino acids 4-8 of Sequence Listing ID No. 39),  
[74] 76, EIKSFSQEGRT (Sequence Listing ID No. 40), 78, KSFSQEGR  
(amino acids 3-10 of Sequence Listing ID No. 40), 81, SQEGRTTKQ  
(Sequence Listing ID No. 41), 84, GRTTKQEPM (Sequence Listing ID  
No. 42), [105] 106, STKQAAFKAV (amino acids 2-11 of Sequence  
Listing ID No. 43), [106] 105, ISTKQAAFKAVS (Sequence Listing ID  
No. 43), [109] 108, KQAAFKAV (amino acids 4-11 of Sequence  
Listing ID No. 43), 111, AFKAVSEVC (Sequence Listing ID No. 44),  
126, FTFIQFKKDLKESMK (Sequence Listing ID No. 45), 130, QFKKDLKE

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*Q93*  
(amino acids 5-12 of Sequence Listing ID No. 45), 138, SMKCGMWGRA  
(Sequence Listing ID No. 46), 139, MKCGMWGRA (amino acids 2-10 of  
Sequence Listing ID No. 46), 142, GMWGRALRKAIA (Sequence Listing  
ID No. 47), 145, GRALRKAI (amino acids 4-11 of Sequence Listing  
ID No. 47), 165, [ALAVTKYKORNGWSHKDLLRLSH]  
ALAVTKYKORNGWSHKDLLRLSH (Sequence Listing ID No. 48), 169,  
[TKYKORNG] TKYKORNG (amino acids 5-12 of Sequence Listing ID No.  
48), 173, [ORNGWSHK] ORNGWSHK (amino acids 9-16 of Sequence  
Listing ID No. 48), 182, LLRLSHLKPSS (Sequence Listing ID No.  
49), 184, RLSHLKPS (amino acids 3-10 of Sequence Listing ID No.  
49), [198] 199, TKYITKGW (amino acids 2-9 of Sequence Listing ID  
No. 71), [201] 202, ITKGWKEV (amino acids 5-12 of Sequence  
Listing ID No. 71), 210, HELYKEKA (Sequence Listing ID No. 50),  
212, LYKEKALSV (Sequence Listing ID No. 51), [215] 216,  
KALSVETEKLLKYL (Sequence Listing ID No. 52), [221] 222, TEKLLKYL  
(amino acids 7-14 of Sequence Listing ID No. 52), 224, KLLKYLEA  
(Sequence Listing ID No. 53), 229, LEAVEKVKRTKDE (Sequence  
Listing ID No. 54), 234, KVKRTKDE (amino acids 6-13 of Sequence  
Listing ID No. 54), 257, HLLTNHLKSKEVWKALLOEMPL (Sequence Listing  
ID No. 55), 263, LKSKEVWK (amino acids 7-14 of Sequence Listing  
ID No. 55), 264, KSKEVWKA (amino acids 8-15 of Sequence Listing  
ID No. 55), 265, SKEVWK (amino acids 9-14 of Sequence Listing ID  
No. 55), 280 ALLRNLGKMTA (Sequence Listing ID No. 56), 283,  
RNLGKMT (amino acids 4-10 of Sequence Listing ID No. 56), 285,

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NGKMTANS (Sequence Listing ID No. 57), 308, LCNEKLLKKARIHPFHI  
(Sequence Listing ID No. 58), 313, LLKKARI (amino acids 6-12 of  
Sequence Listing ID No. 58), 315, KKARIHPF (amino acids 8-15 of  
Sequence Listing ID No. 58), 330, TYKTGHGLRGKLKWRPDE (Sequence  
Listing ID No. 59), 331, YKTGHGL (amino acids 2-8 of Sequence  
Listing ID No. 59), 352, ALDAAFYK (Sequence Listing ID No. 60),  
355, AAFYKTFKTVEPTGKRFLLA (Sequence Listing ID No. 61), [362]  
379, [ASMNORVLGS] ASMNORVLGS (Sequence Listing ID No. 62), 365,  
EPTGKRFL (amino acids 11-18 of Sequence Listing ID No. 61), 398,  
AMCMVVTR (Sequence Listing ID No. 63), 414, AFSDEMVP (Sequence  
Listing ID No. 64), 420, VPCPVTTD (Sequence Listing ID No. 65),  
433, VLMAMSQI (Sequence Listing ID No. 66), 445, TDCSLPMI  
(Sequence Listing ID No. 67), 449, KPMIWAQKTNTPA (amino acids 3-  
15 of Sequence Listing ID No. 68), [453] 472, TFAGGVHPAI  
(Sequence Listing ID No. 69), 472, [TFAGGVHPAI, 472,] TFAGGVHP  
(amino acids 1-8 of Sequence Listing ID No. 69), [482] 481,  
IALREYRKKMDIPAKL (Sequence Listing ID No. 70), 484, REYRKKMD  
(amino acids 4-11 of Sequence Listing ID No. 70), ;

the Sm B/B' epitopes: [20] 28, IGTFKAFD (Sequence  
Listing ID No. 103), [21] 29, GTFKAFDK (Sequence Listing ID No.  
1), [22] 30, TFKAFDKH (amino acids 1-8 of Sequence Listing ID No.  
15) 29, [GTFKAFDK] 30, TFKAFDKHM (Sequence Listing ID No. 15) 44,  
DCDEFKRI (Sequence Listing ID No. 104) 45, [CDEFKRIK] CDEFKRIK  
(amino acids 1-8 of Sequence Listing ID No. 2) 45,

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*993*

CDEFFRKIKPKNAKQP (Sequence Listing ID No. 2), 46, [DEFRKJKP]  
DEFRKIKP (amino acids 2-9 of Sequence Listing ID No. 2), 47,  
EFRKIKPK (amino acids 3-10 of Sequence Listing ID No. 2), [76]  
48, [FRKJKPKN] FRKIKPKN (amino acids 4-11 of Sequence Listing ID  
No. 2), [77] 49, RKIKPKNA (amino acids 5-12 of Sequence Listing  
ID No. 2), [78] 50, KIKPKNAK (amino acids 6-13 of Sequence  
Listing ID No. 2), [79] 51, IKPKNAKQ (amino acids 7-14 of  
Sequence Listing ID No. 2), [80] 52, [KPKNAKOP] KPKNAKQP (amino  
acids 8-15 of Sequence Listing ID No. 2), [81] 53, PKNAKQPE  
(Sequence Listing ID No. 105), 83, EGPPPKDT (Sequence Listing ID  
No. 16), 88, KDTGIARV (Sequence Listing ID No. 17), 94, RVPLAGAA  
(Sequence Listing ID No. 3), 101, AGGPGVGRAAGRGVPAG (Sequence  
Listing ID No. 4), 104, PGVGRAAG (amino acids 4-11 of Sequence  
Listing ID No. 4), 120, IPQAPAGLAG (Sequence Listing ID No. 18),  
125, AGLAGPVRGVGGPSQ (Sequence Listing ID No. 5), 131, VRGVGGPS  
(amino acids 6-13 of Sequence Listing ID No. 5) 139, QQVMTPQG  
(Sequence Listing ID No. 107), 140, QVMTPQGR (amino acids 1-6 of  
Sequence Listing ID No. 6), 141, [VMTPQGRG] VMTPQGRG, amino acids  
2-9 of (Sequence Listing ID No. 6), 144, [POGR] POGR (amino acids  
5-8 of Sequence Listing ID No. 6), 142, [MTPQGBGT] MTPQGRGT  
(amino acids 3-11 of Sequence Listing ID No. 6), 143, TPQGRGTV,  
(amino acids 4-11 of Sequence Listing ID No. 6), 144, PQGRGTVA  
(amino acids 5-12 of Sequence Listing ID No. 6) 145, QGRGTVA  
(Sequence Listing ID No. 108) 164, APTQYPPG (Sequence Listing ID

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*B1*  
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No. 109) 165, PTQYPPGR (amino acids 1-8 of Sequence Listing ID  
No. 7) 166, TQYPPGRG (amino acids 2-9 of Sequence Listing ID No.  
7) 167, QYPPGRGT, amino acids 3-10 of (Sequence Listing ID No. 7)  
168, YPPGRGTP (amino acids 4-11 of Sequence Listing ID No. 7)  
169, PPGRGTPP (amino acids 5-12 of Sequence Listing ID No. 7)  
170, PGRGTTPP (amino acids 6-13 of Sequence Listing ID No. 7)  
171, GRGTTPPP (amino acids 7-14 of Sequence Listing ID No. 7)  
172, RGTPPPPV (amino acids 8-15 of Sequence Listing ID No. 7)  
173, GTPPPVVG (Sequence Listing ID No. 110) 174, TTPPPVGRATPPPGI  
(Sequence Listing ID No. 8), 175, PPPVGRA (amino acids 2-9 of  
Sequence Listing ID No. 8), 184, PPPGIMAP (Sequence Listing ID  
No. 9), 188, IMAPPPGM (Sequence Listing ID No. 111), 189,  
MAPPPGMRPPM (Sequence Listing ID No. 10), 189, MAPPPGMR (amino  
acids 1-8 of Sequence Listing ID No. 10), 191, PPPGMR (amino  
acids 3-8 of Sequence Listing ID No. 13), 190, APPPGMRP (amino  
acids 2-9 of Sequence Listing ID No. 10), 191, PPPGMRPP (amino  
acids 3-10 of Sequence Listing ID No. 10), 192, PPGMRPPM (amino  
acids 4-11 of Sequence Listing ID No. 10), 202, PIGLPPARGTPIGMPP  
(Sequence Listing ID No. 11), 206, PPARGTPI, (amino acids 5-11 of  
Sequence Listing ID No. 11), 212, PIGMPPPG (Sequence Listing ID  
No. 12), 213, IGMPPPGM (Sequence Listing ID No. 12), 214,  
[GMPPPGMB] GMPPPGMR (Sequence Listing ID No. 113), [216, PPPGMB,]  
215, MPPPGMRP (Sequence Listing ID No. 118), 216, PPPGMRPP (amino  
acids 4-11 of Sequence Listing ID No. 14), 217, PPGMRPPP

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A93  
~~(Sequence Listing ID No. 114), 220, MRPPPGI (Sequence Listing ID No. 115), 221, RPPPPGIR (amino acids 1-8 of Sequence Listing ID No. 13), 221, RPPPPGIRGPP (Sequence Listing ID No. 13), 223, PPPGIR (amino acids 3-8 of Sequence Listing ID No. 13), 222, PPPPGIRG (amino acids 2-9 of Sequence Listing ID No. 13), 223, PPPGIRGP (amino acids 3-10 of Sequence Listing ID No. 13), 224, PPGIRGPP (amino acids 4-11 of Sequence Listing ID No. 13), 228, RGPPPPGM (amino acids 1-8 of Sequence Listing ID No. 14), 228, RGPPPPGMRPPR (Sequence Listing ID No. 14), 229, GPPPPGMR (amino acids 2-9 of Sequence Listing ID No. 14), 230, PPPPGMRP (amino acids 3-10 of Sequence Listing ID No. 14), 231, PPPGMRPP (amino acids 4-11 of Sequence Listing ID No. 14), 231, PPPGMR (amino acids 3-8 of Sequence Listing ID No. 10), and 232, PPGMRPPR (amino acids 5-12 of Sequence Listing ID No. 14) or mixtures thereof.~~

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A94  
17. (amended) A method for treating patients for autoimmune disorders comprising administering to the patient an epitope selected from the group of peptides of less than forty amino acids, beginning with the amino acid numbered from the amino terminus followed by the listed amino acid sequence consisting of

the La/SSB epitopes: 136, QVLNIQMRRTLHKAFKGS (Sequence Listing ID No. 19), 139, NIQMRRTLHKAFK (amino acids 4-16 of Sequence Listing ID No. 19), 144, RTLHKAFK (amino acids 9-16 of

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Sequence Listing ID No. 19), 17, ICHQIEYYFGDFNLPRDKFLK (Sequence Listing ID No. 20), 24, YFGDFNLP (amino acids 8-15 of Sequence Listing ID No. 20), 46, WVPLEIMIKFNR (Sequence Listing ID No. 21), 47, VPLEIMIK (amino acids 2-9 of Sequence Listing ID No. 21), 86, [KTKIRRSPSKPL] KTKIRRSPSKPL (Sequence Listing ID No. 22), [89] 88, KIRRSPSK (amino acids 4-11 of Sequence Listing ID No. 22), 56, NRLNRLTTDFNVIVE, (Sequence Listing ID No. 23), 56, NRLNRLTT (amino acids 1-8 of Sequence Listing ID No. 23), 257, GEIKWIDFVRGAK (Sequence Listing ID No. 24), 260, KWIDFVRGAK (amino acids 4-13 of Sequence Listing ID No. 24), 262, IDFVRGAK (amino acids 6-13 of Sequence Listing ID No. 24), 325, SLNKWKSKGRRFKGKGKGNK (Sequence Listing ID No. 25), 330, KSKGRRFK (amino acids 6-13 of Sequence Listing ID No. 25), 292, GNLQLRNKEVTW (Sequence Listing ID No. 26), 296, LRNKEVTW (amino acids 5-12 of Sequence Listing ID No. 26), 154, IFVVFDSE (Sequence Listing ID No. 27), 155, FVVFDSE (amino acids 2-9 of Sequence Listing ID No. 27), 176, KETDLLILFKDDYFA (Sequence Listing ID No. 28), 182, ILFKDDYF (amino acids 7-14 of Sequence Listing ID No. 28), 104, YKNDVKNRSVYIKGFPT (Sequence Listing ID No. 29), 112, SVYIKGFP (amino acids 9-16 of Sequence Listing ID No. 29), 63, TDFNVIVE (Sequence Listing ID No. 30), 64, DFNVIVEA (amino acids 2-9 of Sequence Listing ID No. 30), 270, EGIILFKEKAK (Sequence Listing ID No. 31), 270, EGIILFKE (amino acids 1-8 of Sequence Listing ID No. 31), 354, KVQFQGKKTGFASD, (Sequence



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Listing ID No. 32), 360, KKTKFASD (amino acids 7-14 of Sequence Listing ID No. 32), 246, REDLHILF (Sequence Listing ID No. 33), 232, CLLKFSGD (Sequence Listing ID No. 34), 379, TGPVKRAR (Sequence Listing ID No. 35), 200, KVEAKLRAKQ (Sequence Listing ID No. 36), 202, EAKLRAKQ (amino acids 3-10 of Sequence Listing ID No. 36), ;

the Ro/SSA epitopes: 30, MNRLHRFL (Sequence Listing ID No. 37), 37, LCFGSEGGT (Sequence Listing ID No. 38), 38, CFGSEGGT (amino acids 2-9 of Sequence Listing ID No. 38), [44] 41, SEGGTYIIEQ (Sequence Listing ID No. 39), [45] 42, EGGTYIIEQ (amino acids 2-11 of Sequence Listing ID No. 39), [47] 44, GTYYIIEQ (amino acids 4-11 of Sequence Listing ID No. 39), [47] 44, GTYYI (amino acids 4-8 of Sequence Listing ID No. 39), [74] 76, EIKSFSQEGRT (Sequence Listing ID No. 40), 78, KSFSQEGR (amino acids 3-10 of Sequence Listing ID No. 40), 81, SQEGRTTKQ (Sequence Listing ID No. 41), 84, GRTTKQEPM (Sequence Listing ID No. 42), [105] 106, STKQAAFKAV (amino acids 2-11 of Sequence Listing ID No. 43), [106] 105, ISTKQAAFKAVS (Sequence Listing ID No. 43), [109] 108, KQAAFKAV (amino acids 4-11 of Sequence Listing ID No. 43), 111, AFKAVSEVC (Sequence Listing ID No. 44), 126, FTFIQFKKDLKESMK (Sequence Listing ID No. 45), 130, QFKKDLKE (amino acids 5-12 of Sequence Listing ID No. 45), 138, SMKCGMWGRA (Sequence Listing ID No. 46), 139, MKCGMWGRA (amino acids 2-10 of Sequence Listing ID No. 46), 142, GMWGRALRKAIA (Sequence Listing

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ID No. 47), 145, GRALRKAI (amino acids 4-11 of Sequence Listing  
ID No. 47), 165, [ALAVTKYKORNGWSHKDLLRLSH]  
ALAVTKYKORNGWSHKDLLRLSH (Sequence Listing ID No. 48), 169,  
[TKYKORNG] TKYKORNG (amino acids 5-12 of Sequence Listing ID No.  
48), 173, [ORNGWSHK] ORNGWSHK (amino acids 9-16 of Sequence  
Listing ID No. 48), 182, LLRLSHLKPSS (Sequence Listing ID No.  
49), 184, RLSHLKPS (amino acids 3-10 of Sequence Listing ID No.  
49), [198] 199, TKYITKGW (amino acids 2-9 of Sequence Listing ID  
No. 71), [201] 202, ITKGWKEV (amino acids 5-12 of Sequence  
Listing ID No. 71), 210, HELYKEKA (Sequence Listing ID No. 50),  
212, LYKEKALSV (Sequence Listing ID No. 51), [215] 216,  
KALSVETEKLLKYL (Sequence Listing ID No. 52), [221] 222, TEKLLKYL  
(amino acids 7-14 of Sequence Listing ID No. 52), 224, KLLKYLEA  
(Sequence Listing ID No. 53), 229, LEAVEKVKRTKDE (Sequence  
Listing ID No. 54), 234, KVKRTKDE (amino acids 6-13 of Sequence  
Listing ID No. 54), 257, HLLTNHLKSKEVWKALLQEMPL (Sequence Listing  
ID No. 55), 263, LKSKEVWK (amino acids 7-14 of Sequence Listing  
ID No. 55), 264, KSKEVWKA (amino acids 8-15 of Sequence Listing  
ID No. 55), 265, SKEVWK (amino acids 9-14 of Sequence Listing ID  
No. 55), 280 ALLRNLGKMTA (Sequence Listing ID No. 56), 283,  
RNLGKMT (amino acids 4-10 of Sequence Listing ID No. 56), 285,  
LGKMTANS (Sequence Listing ID No. 57), 308, LCNEKLLKKARIHPFHI  
(Sequence Listing ID No. 58), 313, LLKKARI (amino acids 6-12 of  
Sequence Listing ID No. 58), 315, KKARIHPF (amino acids 8-15 of

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~~Sequence Listing ID No. 58), 330, TYKTGHGLRGKLGKWRPDE (Sequence Listing ID No. 59), 331, YKTGHGL (amino acids 2-8 of Sequence Listing ID No. 59), 352, ALDAAFYK (Sequence Listing ID No. 60), 355, AAFYKTFKTVEPTGKRFLLA (Sequence Listing ID No. 61), [362] 379, [ASMNORVLGS] ASMNORVLGS (Sequence Listing ID No. 62), 365, EPTGKRFL (amino acids 11-18 of Sequence Listing ID No. 61), 398, AMCMVVTR (Sequence Listing ID No. 63), 414, AFSDEMVP (Sequence Listing ID No. 64), 420, VPCPVTTD (Sequence Listing ID No. 65), 433, VLMAMSQI (Sequence Listing ID No. 66), 445, TDCSLPMI (Sequence Listing ID No. 67), 449, LPMIWAQKTNTTPA (amino acids 3-15 of Sequence Listing ID No. 68), [453] 472, TFAGGVHPAI (Sequence Listing ID No. 69), 472, [TFAGGVHPAI, 472,] TFAGGVHP (amino acids 1-8 of Sequence Listing ID No. 69), [482] 481, IALREYRKKMDIPAKL (Sequence Listing ID No. 70), 484, REYRKKMD (amino acids 4-11 of Sequence Listing ID No. 70), ;~~

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the Sm B/B' epitopes: [20] 28, IGTFKAFD (Sequence Listing ID No. 103), [21] 29, GTFKAFDK (Sequence Listing ID No. 1), [22] 30, TFKAFDKH (amino acids 1-8 of Sequence Listing ID No. 15) 29, [GTFKAFDK] 30, TFKAFDKHM (Sequence Listing ID No. 15) 44, DCDEFKRI (Sequence Listing ID No. 104) 45, [CDEFKRIK] CDEFKRIK (amino acids 1-8 of Sequence Listing ID No. 2) 45, CDEFKRIKPKNAKQP (Sequence Listing ID No. 2), 46, [DEFKRIK] DEFKRIK (amino acids 2-9 of Sequence Listing ID No. 2), 47, EFRKIKPK (amino acids 3-10 of Sequence Listing ID No. 2), [76]

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48, [FRKJKPKN] FRKIKPKN (amino acids 4-11 of Sequence Listing ID No. 2), [77] 49, RKIKPKNA (amino acids 5-12 of Sequence Listing ID No. 2), [78] 50, KIKPKNAK (amino acids 6-13 of Sequence Listing ID No. 2), [79] 51, IKPKNAKQ (amino acids 7-14 of Sequence Listing ID No. 2), [80] 52, [KPKNAKOP] KPKNAKOP (amino acids 8-15 of Sequence Listing ID No. 2), [81] 53, PKNAKQPE (Sequence Listing ID No. 105), 83, EGPPPKDT (Sequence Listing ID No. 16), 88, KDTGIARV (Sequence Listing ID No. 17), 94, RVPLAGAA (Sequence Listing ID No. 3), 101, AGGPGVGRAAGRGVPAG (Sequence Listing ID No. 4), 104, PGVGRAAG (amino acids 4-11 of Sequence Listing ID No. 4), 120, IPQAPAGLAG (Sequence Listing ID No. 18), 125, AGLAGPVRGVGGPSQ (Sequence Listing ID No. 5), 131, VRGVGGPS (amino acids 6-13 of Sequence Listing ID No. 5) 139, QQVMTPQG (Sequence Listing ID No. 107), 140, QVMTPQGR (amino acids 1-6 of Sequence Listing ID No. 6), 141, [VMTPOGRG] VMTPOGRG, amino acids 2-9 of (Sequence Listing ID No. 6), 144, [POGR] POGR (amino acids 5-8 of Sequence Listing ID No. 6), 142, [MTPQGBGT] MTPQGRGT (amino acids 3-11 of Sequence Listing ID No. 6), 143, TPQGRGTV, (amino acids 4-11 of Sequence Listing ID No. 6), 144, PQGRGTVA (amino acids 5-12 of Sequence Listing ID No. 6) 145, QGRGTVAA (Sequence Listing ID No. 108) 164, APTQYPPG (Sequence Listing ID No. 109) 165, PTQYPPGR (amino acids 1-8 of Sequence Listing ID No. 7) 166, TQYPPGRG (amino acids 2-9 of Sequence Listing ID No. 7) 167, QYPPGRGT, amino acids 3-10 of (Sequence Listing ID No. 7)

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168, YPPGRGTP (amino acids 4-11 of Sequence Listing ID No. 7)  
169, PPGRGTPP (amino acids 5-12 of Sequence Listing ID No. 7)  
170, PGRGTPPP (amino acids 6-13 of Sequence Listing ID No. 7)  
171, GRGTTPPP (amino acids 7-14 of Sequence Listing ID No. 7)  
172, RGTPPPPV (amino acids 8-15 of Sequence Listing ID No. 7)  
173, GTPPPVVG (Sequence Listing ID No. 110) 174, TTPPPVGRATPPPGI  
(Sequence Listing ID No. 8), 175, PPPVGRA (amino acids 2-9 of  
Sequence Listing ID No. 8), 184, PPPGIMAP (Sequence Listing ID  
No. 9), 188, IMAPPPGM (Sequence Listing ID No. 111), 189,  
MAPPPGMRPPM (Sequence Listing ID No. 10), 189, MAPPPGMR (amino  
acids 1-8 of Sequence Listing ID No. 10), 191, PPPGMR (amino  
acids 3-8 of Sequence Listing ID No. 13), 190, APPPGMRP (amino  
acids 2-9 of Sequence Listing ID No. 10), 191, PPPGMRPP (amino  
acids 3-10 of Sequence Listing ID No. 10), 192, PPGMRPPM (amino  
acids 4-11 of Sequence Listing ID No. 10), 202, PIGLPPARGTPIGMPP  
(Sequence Listing ID No. 11), 206, PPARGTPI, (amino acids 5-11 of  
Sequence Listing ID No. 11), 212, PIGMPPPG (Sequence Listing ID  
No. 12), 213, IGMPPPGM (Sequence Listing ID No. 12), 214,  
[GMPPPGMB] GMPPPGMR (Sequence Listing ID No. 113), [216, PPPGMB,]  
215, MPPPGMRP (Sequence Listing ID No. 118), 216, PPPGMRPP (amino  
acids 4-11 of Sequence Listing ID No. 14), 217, PPGMRPPP  
(Sequence Listing ID No. 114), 220, MRPPPPGI (Sequence Listing ID  
No. 115), 221, RPPPPGIR (amino acids 1-8 of Sequence Listing ID  
No. 13), 221, RPPPPGIRGPP (Sequence Listing ID No. 13), 223,